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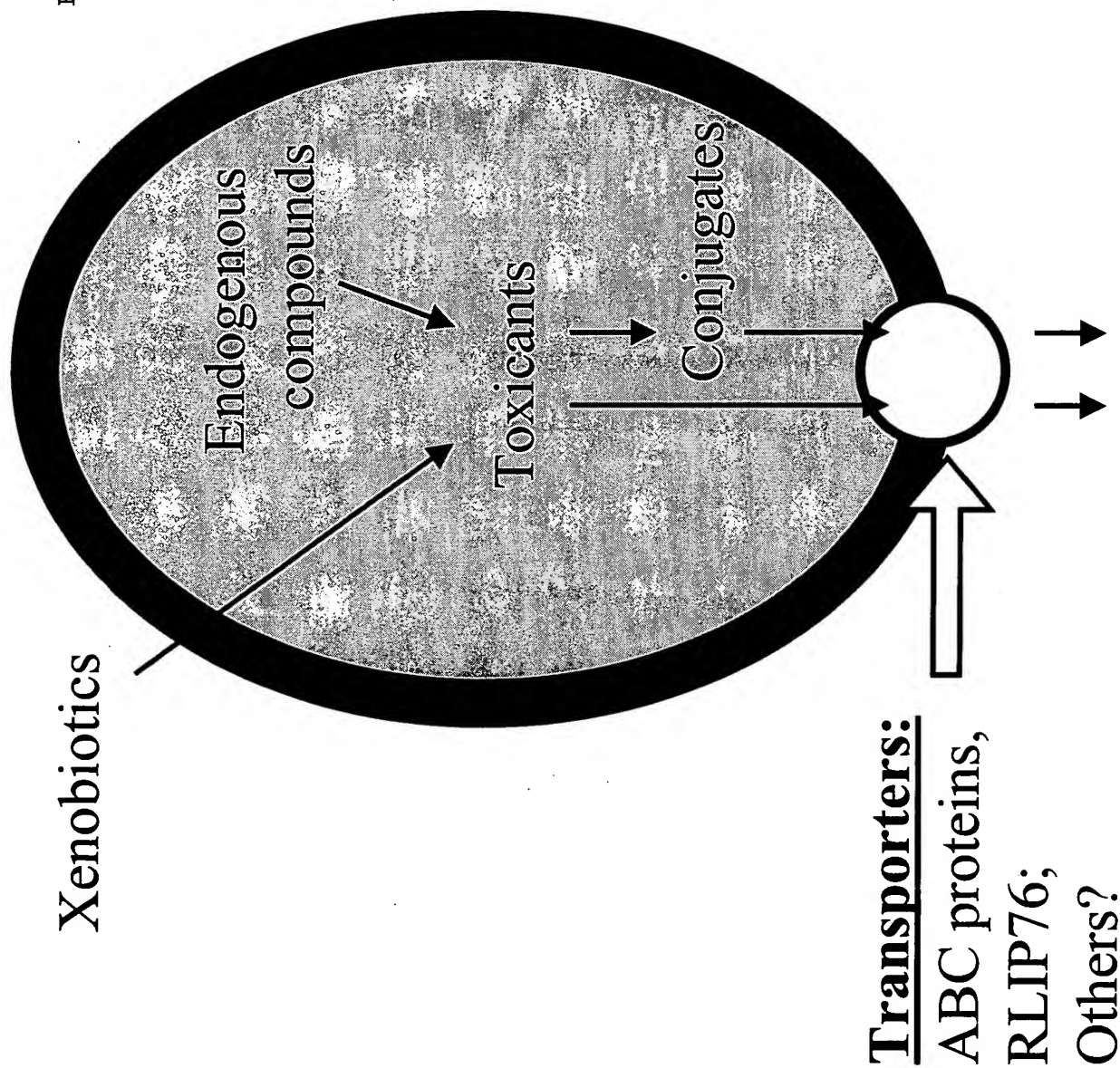
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Fig. 1



[illegible]

Fig. 22

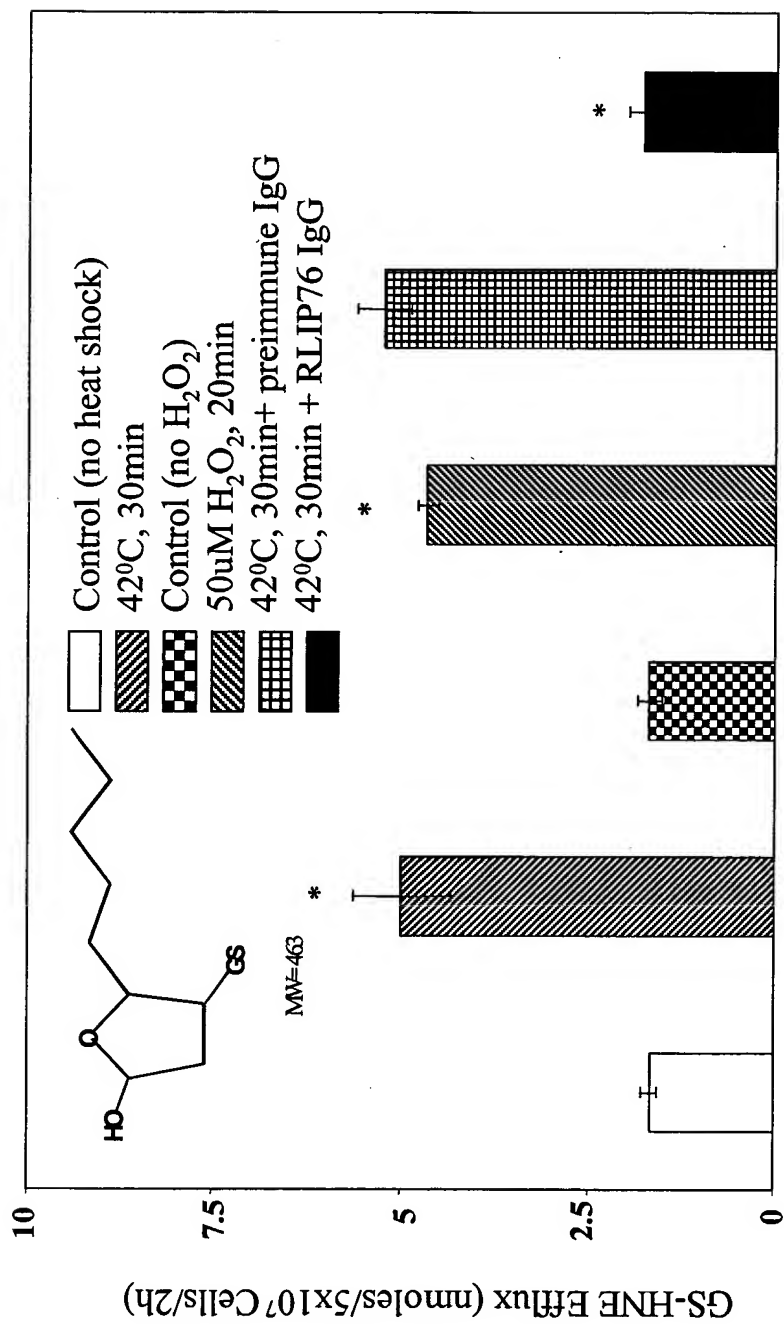


Fig. 3

Fig. 4A

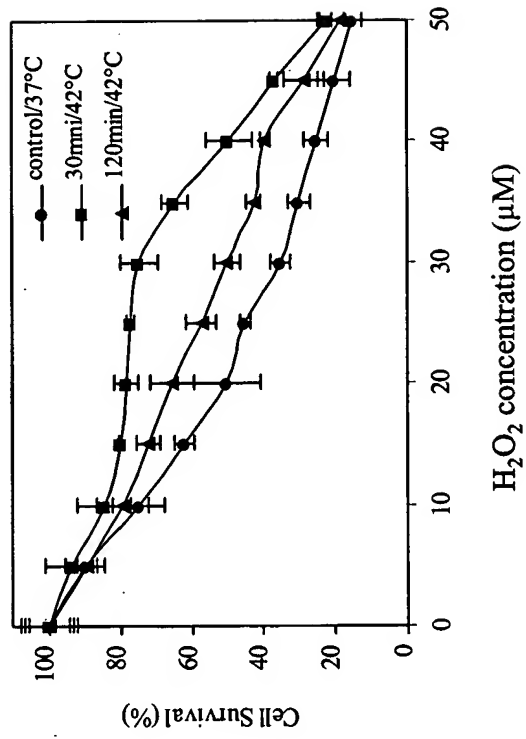


Fig. 4B

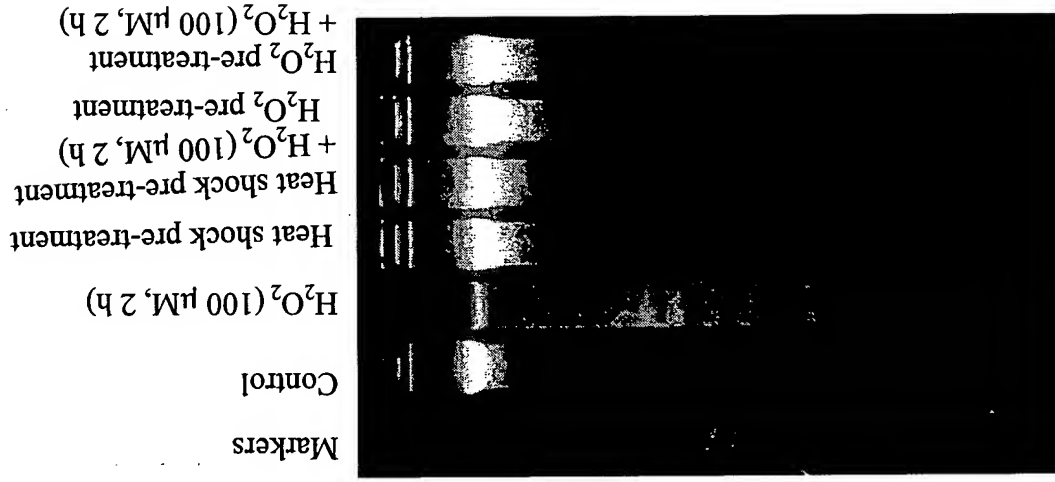


Fig. 5

RLIP76, A NOVEL TRANSPORTER OF XENOBIOTICS

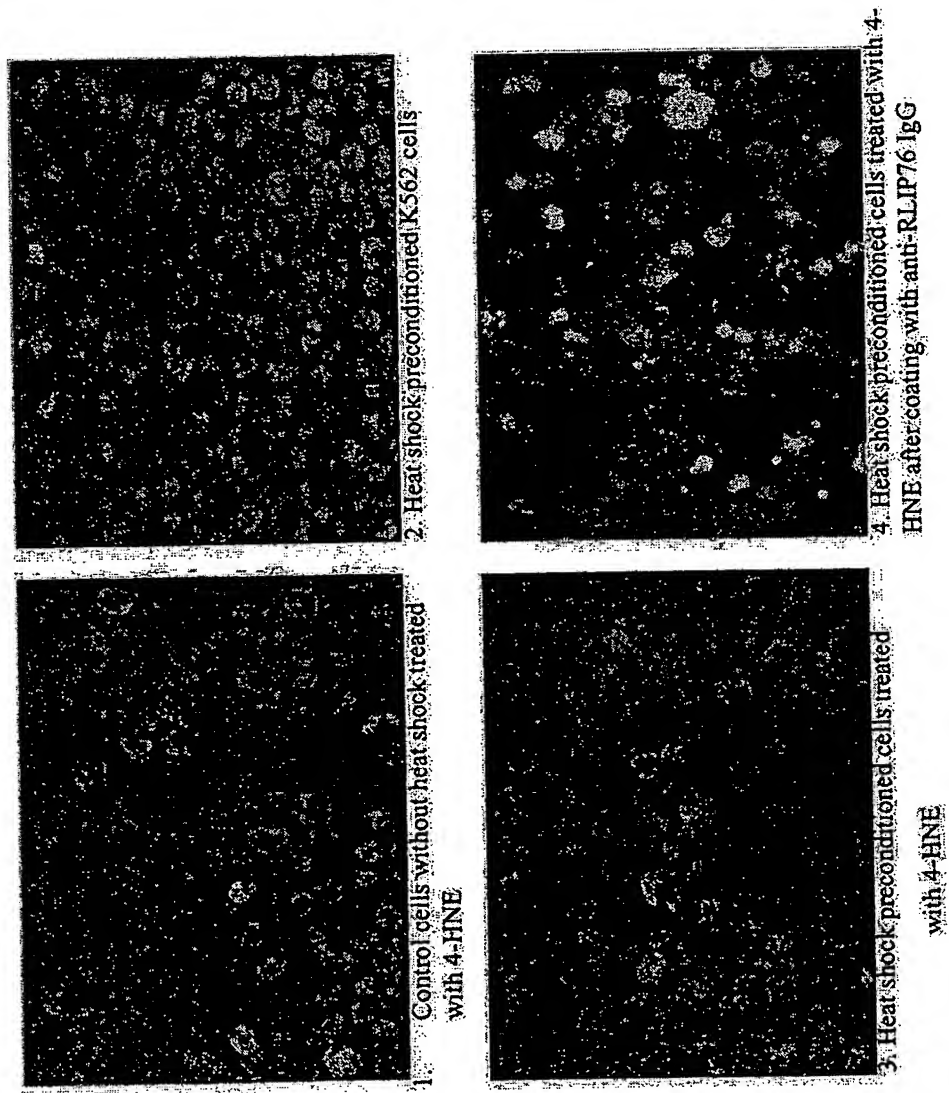
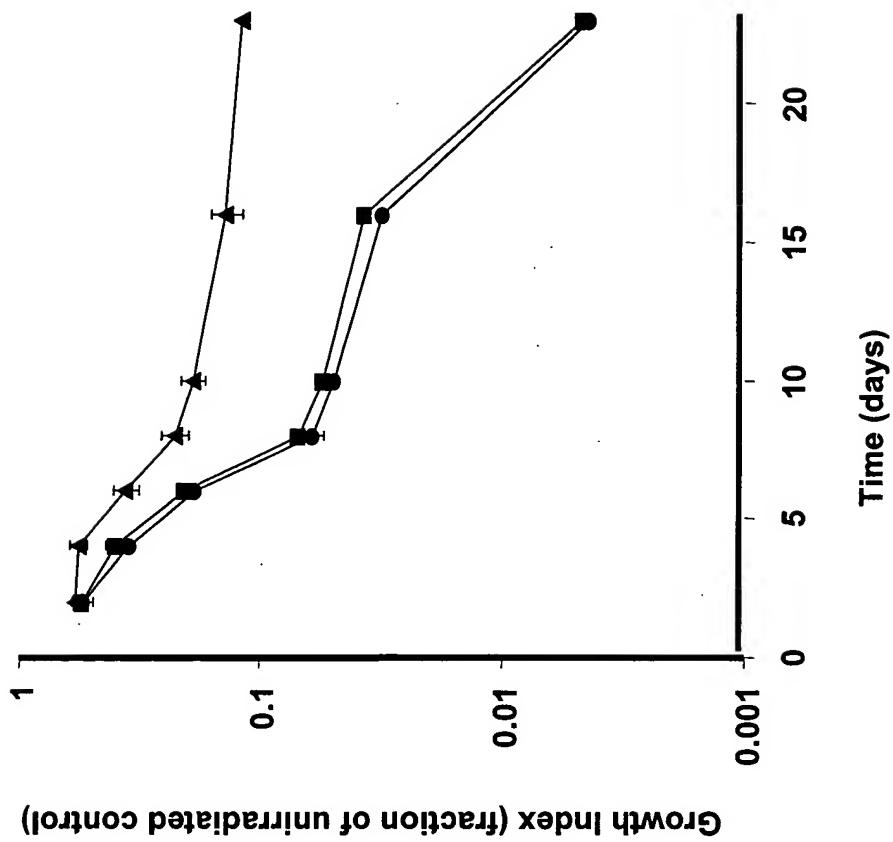


Fig. 6



Radiation (UV, X-ray), Metal ions

Fig. 7

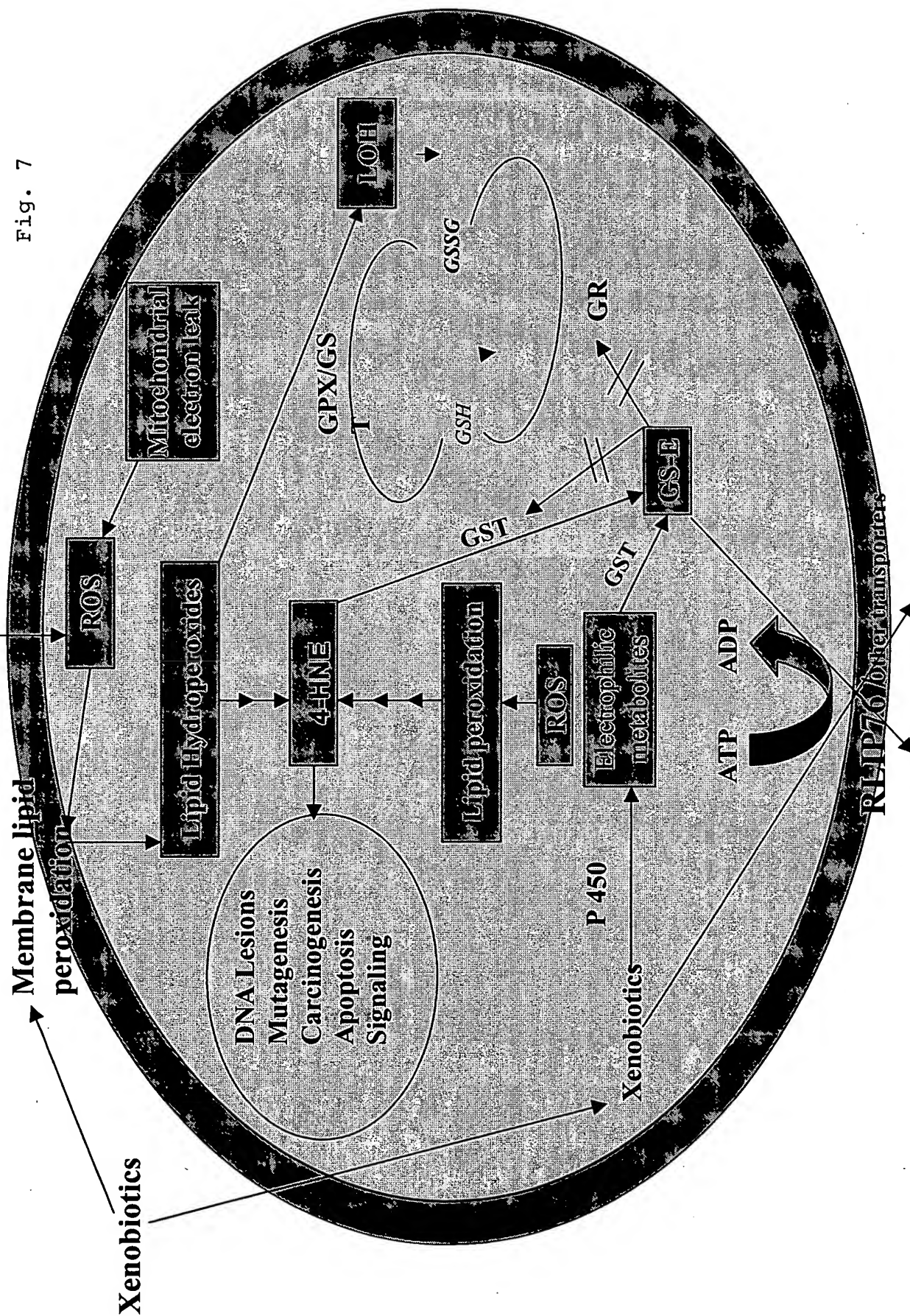


Fig. 8

A. Sequence around the insertion site
 5'TTTGTTAAATTTTCTATCTTCTGCTCACTCGTCCCTTAACAGTTGCTGTAAATAAGGGGACAGTATACACTAGACCCTGTTACAGTGCAGTTAT
 AGAATGTCACAATTTTAAAGTTGACTCTGCCTGOAGGGCTTGCTTTAGGTA-insertion site-TGCTATTTTACTTTGCCAAGATGCTGGAGCTGAGT-
 GGGAAACAAGTTGTAGAGCTCAGTGGGGGGAGGCCAATGAGAAGTTTGCTTGTAGACTAAGCCCCGGCCATAGGGGAAGGTAAGTCAAAAGAT
 TAAGGCTGATGATTATAAGGAAAAATCCAAAGGAGTCAAGTGTTGGGTTAAGTACACCTTAATGATGTTAGTAGGTTTAAGAGGATTAAATTATGTA
 ACAGCTCAGTTAGGTAATAATTGG 3'

B. LTR-primer:5' - AAATGGCGTTACTTAAGCTAGCTTGC - 3'

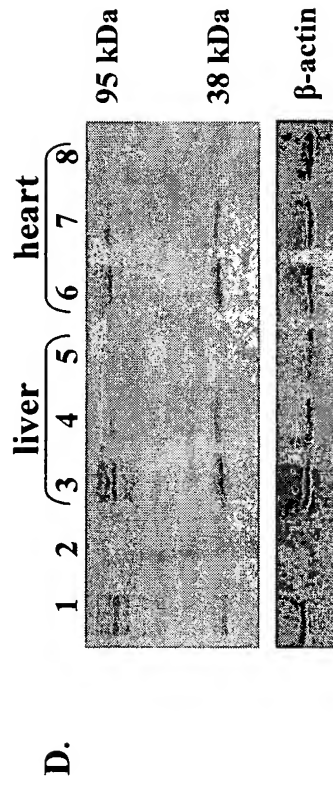
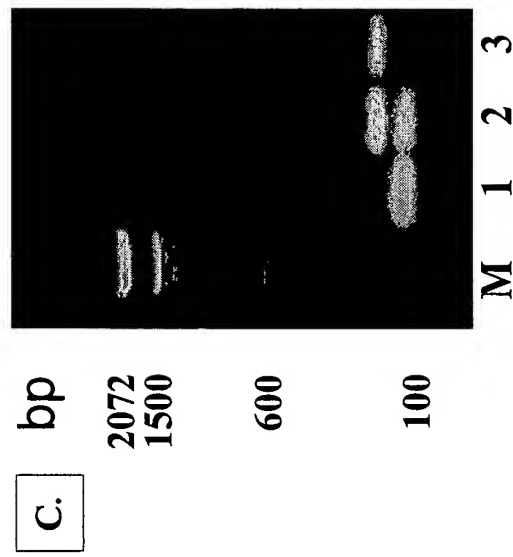


Fig. 9

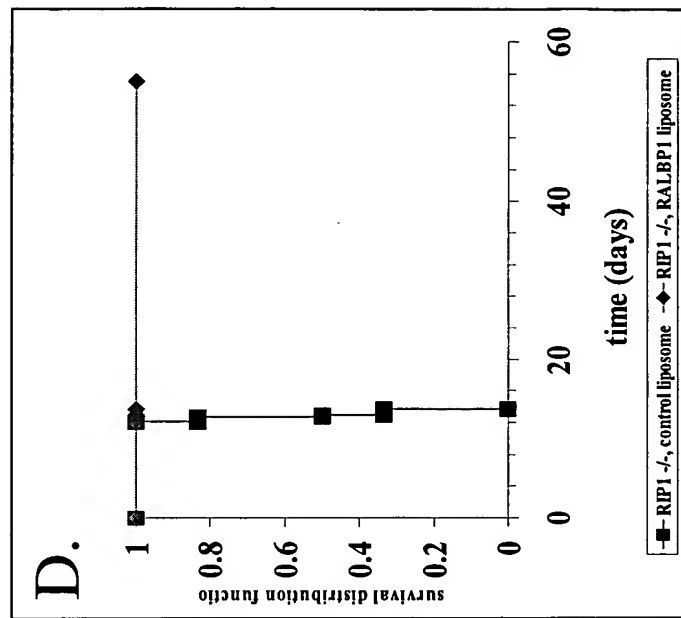
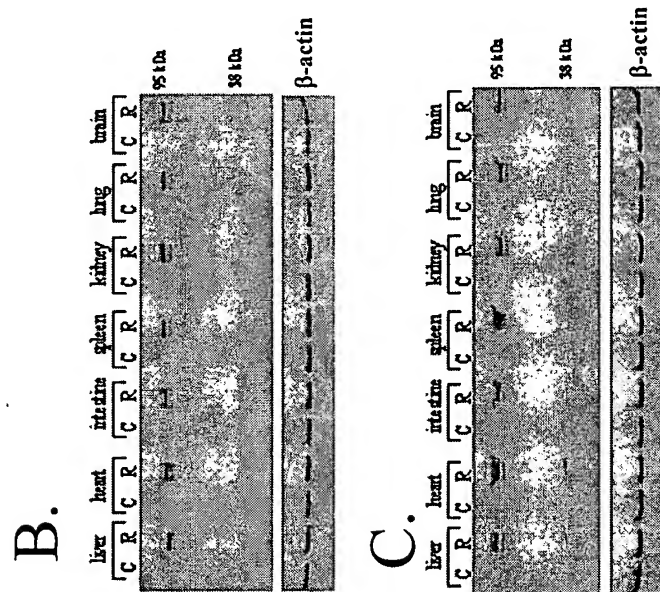
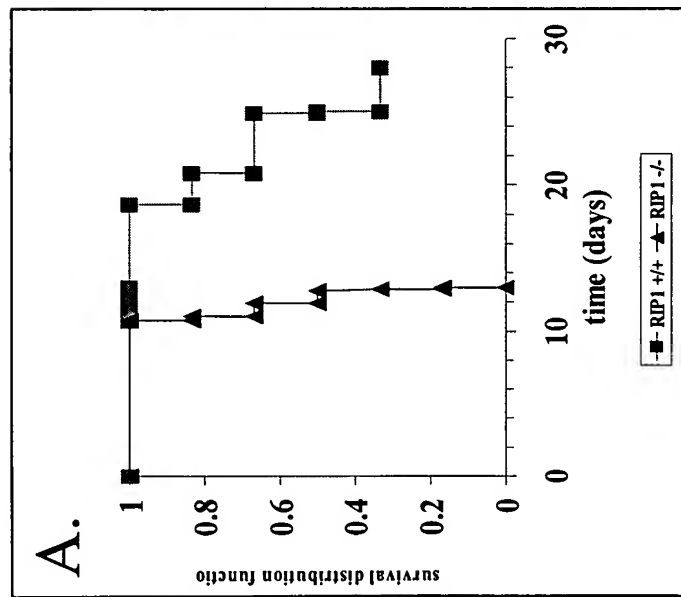


Fig. 10

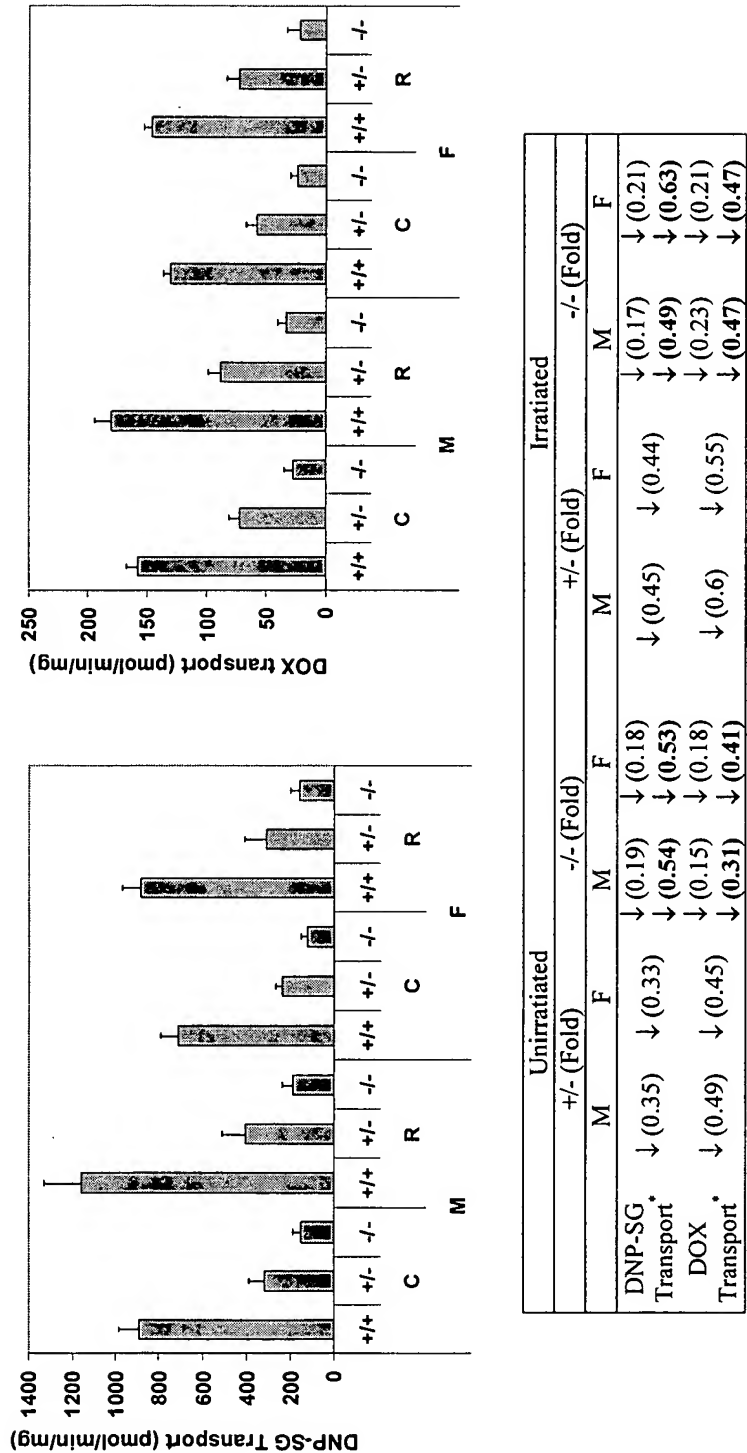


FIG. 11

Organ	LOOH				TBARS				GSH				GGCS			
	+/-		-/-		+/-		-/-		+/-		-/-		+/-		-/-	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Liver	-	-	↓(0.77) ↓(0.79)	-	↓(0.47) ↓(0.60)	↓(0.63) ↓(0.71)	-	-	↓(0.86) ↓(0.77)	↓(0.76) ↓(0.77)	-	-	↑(3.63) ↑(5.25) ↑(1.45)	-	↑(5.25) ↑(1.45)	↑(1.16) -
Lung	↑(1.32)	↑(1.23)	↑(1.62) ↑(1.23)	↑(1.96) ↑(1.59)	↑(1.17) -	↑(1.19) -	-	-	↑(1.07) ↑(1.41)	↑(1.41) -	-	-	-	-	-	-
Kidney	↑(1.20)	↑(1.18)	↑(1.43) ↑(1.19)	↑(1.53) ↑(1.29)	-	-	-	-	-	↑(1.19)	↑(1.11)	-	↓(0.65)	-	↓(0.57) ↓(0.85)	↓(0.73) ↓(0.80)
Heart	↑(1.47)	↑(1.75)	↑(3.12) ↑(2.12)	↑(2.56) ↑(1.46)	↑(1.93) ↑(1.54)	↑(1.54) ↑(1.35)	-	-	↑(1.77) ↑(1.69) ↑(1.09)	↑(1.88) -	-	-	↓(0.68)	↓(0.70)	↓(0.60) ↓(0.88)	↓(0.54) ↓(0.78)
Brain	-	↑(1.16)	↑(1.32) ↑(1.25)	↑(1.28) -	↑(1.61) ↑(1.38)	↑(1.46) ↑(1.26)	-	-	↑(1.31) ↑(1.68)	↑(1.41) -	-	-	-	↑(1.15)	-	↓(0.77) ↓(0.67)
Intestine	↑(1.56)	↑(1.55)	↑(2.13) ↑(1.48)	↑(2.40) ↑(1.50)	↑(2.95) ↑(1.84)	↑(2.98) ↑(1.40)	-	-	↑(2.48) ↑(2.91)	↑(2.57) -	-	-	↓(0.72)	↓(0.79)	↓(0.58) ↓(0.80)	↓(0.70) -
Spleen	↑(1.63)	↑(1.52)	↑(2.99) ↑(1.83)	↑(3.39) ↑(2.23)	↑(2.54) ↑(1.73)	↑(2.31) ↑(2.57)	-	-	↑(1.91) ↑(1.22)	↑(2.10) -	-	-	↓(0.68)	↓(0.76)	↓(0.49) ↓(0.72)	↓(0.59) ↓(0.78)
	GST				GPX				GR				G6PD			
	+/-		-/-		+/-		-/-		+/-		-/-		+/-		-/-	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Liver	↑(1.26)	↑(1.09)	↑(1.54) ↑(1.22)	↑(1.46) ↑(1.35)	↑(1.42) ↑(1.13)	↑(1.58) -	-	-	↓(0.86) ↓(0.60) ↓(0.71)	↓(0.71) ↓(0.83)	-	-	↓(0.74)	↓(0.72)	↓(0.58) -	↓(0.75) -
Lung	↓(0.88)	-	-	↓(0.90)	↓(0.75) ↓(0.51)	↓(0.76) -	-	-	-	↓(0.60) ↓(0.70)	-	-	↓(0.75)	↓(0.86)	↓(0.43) ↓(0.57)	-
Kidney	↓(0.79)	↓(0.77)	↓(0.67) ↓(0.86)	↓(0.76) -	↓(0.72) ↓(0.85)	↓(0.68) -	-	-	↓(0.66)	↓(0.64)	-	-	-	-	-	-
Heart	-	↓(0.78)	-	↓(0.64) ↓(0.83)	↓(0.61) ↓(0.22)	↓(0.13) ↓(0.22)	-	-	↓(0.76)	↓(0.70) ↓(0.92)	↓(0.56) ↓(0.78)	-	↓(0.62)	-	↓(0.59) -	↓(0.67) ↓(0.81)
Brain	↓(0.74)	↓(0.78)	↓(0.69) ↓(0.81)	↓(0.63) ↓(0.81)	↓(0.73) ↓(0.54)	↓(0.41) ↓(0.56)	-	-	↓(0.60)	↓(0.52) ↓(0.87)	↓(0.79) ↓(0.86)	-	-	-	↑(1.60) ↑(1.50)	↓(0.88) ↓(0.81)
Intestine	↓(0.78)	-	↓(0.73) ↓(0.81)	↓(0.78) ↓(0.87)	↓(0.65) ↓(0.70)	↓(0.48) ↓(0.15)	-	-	↑(1.12)	↑(1.12)	-	-	-	-	↑(1.20) ↑(1.12)	↓(0.85) -
Spleen	↓(0.60)	↓(0.63)	↓(0.50) -	↓(0.62) -	↓(0.63) -	↓(0.49) ↓(0.79)	-	-	↓(0.75)	↓(0.59) -	↓(0.67) -	-	↓(0.67)	↓(0.87)	↓(0.21) ↓(0.32)	↓(0.81) -

FIG. 12

Organ	LOOH						TBARS						GSH						GGCS					
	+/-			-/-			+/-			-/-			+/-			-/-			+/-			-/-		
	M	F		M	F		M	F		M	F		M	F		M	F		M	F		M	F	
Liver	-	↑ (1.37)	-			↑ (1.13)																		
Lung	↑ (1.43)	↑ (1.30)	↑ (1.67)	↑ (2.10)	↑ (1.27)	↑ (1.71)	↑ (1.43)	↑ (1.28)	↑ (1.25)	↑ (1.35)	↑ (1.39)	↑ (1.20)	↑ (1.07)	↑ (1.38)	↑ (1.16)	-	-	-	-	-	-	↑ (3.93)	-	↑ (4.45)
Kidney	↑ (1.44)	↑ (1.27)	↑ (1.43)	↑ (1.61)	↑ (1.19)	↑ (1.36)	-	-	↑ (1.28)	↑ (1.20)	↑ (1.34)	↑ (1.11)	↑ (1.07)	↑ (1.38)	↑ (1.16)	-	-	-	-	-	-	-	-	-
Heart	↑ (2.24)	↑ (2.04)	↑ (3.35)	↑ (2.88)	↑ (2.28)	↑ (1.64)	↑ (1.60)	↑ (1.30)	↑ (2.24)	↑ (1.78)	↑ (1.53)	↑ (1.20)	↑ (1.82)	↑ (1.76)	↑ (1.27)	↑ (1.59)	↑ (1.76)	↑ (1.14)	↑ (1.17)	↑ (1.76)	↑ (1.07)	↑ (0.84)	↑ (0.81)	↑ (0.65)
Brain	↑ (1.25)	↑ (1.30)	↑ (1.35)	↑ (1.47)	↑ (1.28)	↑ (1.26)	↑ (1.40)	↑ (1.29)	↑ (2.17)	↑ (1.86)	↑ (1.59)	↑ (1.84)	↑ (1.40)	↑ (2.07)	↑ (1.43)	↑ (1.79)	↑ (2.07)	↑ (1.40)	↑ (1.57)	↑ (2.07)	-	-	-	-
Intestine	↑ (1.80)	↑ (1.93)	↑ (2.46)	↑ (2.48)	↑ (1.57)	↑ (1.60)	↑ (1.80)	↑ (1.96)	↑ (3.39)	↑ (3.30)	↑ (2.09)	↑ (3.30)	↑ (2.49)	↑ (3.02)	↑ (2.79)	↑ (2.93)	↑ (3.02)	↑ (1.15)	↑ (1.19)	↑ (3.02)	↑ (1.30)	↑ (0.83)	↑ (0.83)	↑ (0.76)
Spleen	↑ (2.07)	↑ (2.16)	↑ (3.44)	↑ (3.85)	↑ (2.10)	↑ (1.53)	↑ (1.97)	↑ (1.78)	↑ (2.86)	↑ (2.69)	↑ (1.83)	↑ (2.86)	↑ (2.23)	↑ (2.47)	↑ (1.29)	-	↑ (2.23)	-	↑ (2.47)	↑ (2.47)	↑ (1.40)	↑ (0.61)	↑ (0.61)	↑ (0.79)
		</																						

FIG. 13

	DNTR	DXTR	LOOH	TBARS	G6PD	GGCS	GPX	GR	GSH	GST
Organ										
Brain			G, GD, R	GD, G-R	R, G-GD	R, G-GD	GD-R, G-GD	G-GD, G-R, GD-R	G, GD, R	G, GD
Heart	G-GD, G-R	G-GD, G-R	R, G-GD	G, GD, R	THR	THR	R, G-GD	THR	G-GD, G-R	G, GD, R
Intestine			GD, G-R	G, GD, R	GD, R	GD, G-R	G-GD, G-R	GD, G-R	G, GD, R	THR
Kidney			G-GD, G-R	G-R	GD, R	G-GD, G-R	GD-R, G-GD	G-GD, G-R		R, G-GD
Liver			G, GD, R	GD, G-R	G, G-R	G-GD	R, G-GD	G, GD	G, GD, R	R, G-GD
Lung			R, G-GD	G, G-R	R, G-GD		G-GD	G-GD, G-R	G, GD	G, GD
Spleen			GD-R, G-GD	G, GD, R	G-GD, G-R, GD-R	THR	G	G-GD, G-R	G, GD, R	G-GD, G-R

G → Genotype main effect

GD → Gender main effect

R → Radiation main effect

G-GD → Genotype-Gender two way effect

G-R → Genotype-Radiation two way effect

GD-R → Gender-Radiation two way effect

THR → Three way effect (Gender-Genotype-Radiation)